

1677-234

4/8/2013

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Ted Head  
Ecolab, Inc.  
370 N. Wabasha Street  
St. Paul, MN 55102

APR 8 2013

Subject: Antimicrobial Fruit & Vegetable Treatment  
EPA Registration Number: 1677-234  
Application Date: December 07, 2012  
Receipt Date: December 10, 2012

Dear Mr. Head:

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide (FIFRA), as amended, is acceptable.

**Proposed Amendment**

- Updating Directions for Use for EPA & FDA Regulations
- Adding Marketing language
- Adding pathogen reduction claims for fruits & vegetables

**General Comments**

A stamped label is enclosed for your records. Submit a final printed label before distributing or selling product bearing the revised labeling. If you have further questions concerning this letter, then please contact me by telephone at (703) 308-6416 or by e-mail at [campbell-mcfarlane.jacqueline@epa.gov](mailto:campbell-mcfarlane.jacqueline@epa.gov) or Lorena Rivas by telephone at (703) 305-5027 or by email at [rivas.lorena@epa.gov](mailto:rivas.lorena@epa.gov). When you are submitting information or data in response to this letter, send a copy of this letter to accompany the submission in order to facilitate processing.

Sincerely,

Jacqueline Campbell-McFarlane  
Product Manager 34  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

**Enclosure: stamped label**

**CONCURRENCES**

SYMBOL							
SURNAME							
DATE							

## Antimicrobial Fruit & Vegetable Treatment

**Water Additive for Pathogen Reduction in  
Fruit and Vegetable Wash or Process Waters  
Controls Spoilage and Decay Causing Bacteria in Fruit and Vegetable Wash  
or Process Waters**

**Controls the Growth of Spoilage and Decay Causing Non-Public Health Microorganisms  
on Processed\* Fruit and Vegetable Surfaces and in Wash or Process Waters  
Reduces Bacterial Pathogens on Processed\* Fruit and Vegetable Surfaces  
Controls growth of Spoilage and Decay Causing Non-Public Health Microorganisms on  
Processed\* Fruit and Vegetable Surfaces.**

### Antimicrobial Fruit and Vegetable Wash

**Active Ingredients:**

Dodecylbenzenesulfonic acid, sodium salt .....	1.23%
Lactic Acid.....	17.29%
<b>Other Ingredients:</b> .....	<u>81.48%</u>
<b>Total:</b> .....	100.00%

KEEP OUT OF REACH OF CHILDREN

## WARNING

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Causes substantial but temporary eye injury. Harmful if absorbed through skin. Do not get in eyes, on skin or on clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. After the product is diluted, safety goggles are not required.

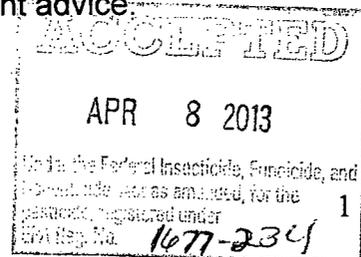
#### FIRST AID

##### If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.
- Call a Poison Control Center or doctor for treatment advice.

##### If on Skin or Clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a Poison Control Center or doctor for treatment advice.



DRAFT 04/02/13

**FOR EMERGENCY MEDICAL INFORMATION CALL TOLL-FREE:  
1-800-328-0026**

Areas of use: Food retail establishments such as restaurants, cafeterias, food service operations, commissaries, and kitchens.

**DIRECTIONS FOR USE:**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**When used as directed under EPA regulations Antimicrobial Fruit & Vegetable Treatment will:**

1. Reduce 99.9% of the pathogens *Escherichia coli* O157:H7 (ATCC 43895, 35150, 43890), *Listeria monocytogenes* (ATCC 49594, 19114, 19116) and *Salmonella enterica* (ATCC 10721, 6962, 13311) in wash or process water for fruit and vegetable raw agricultural commodities (RACs).
2. Controls spoilage and decay causing non-public health microorganisms present in the wash or process water for fruit and vegetable raw agricultural commodities (RACs).
3. Controls the growth of spoilage and decay causing non-public health microorganisms on fruit and vegetable surfaces.

**To treat the surface of processed fruits and vegetables\* subject to FDA regulations:**

This product may be used in wash waters to reduce the pathogens *Escherichia coli* O157:H7, *Listeria monocytogenes* and *Salmonella enterica* on the surface of processed fruits and vegetables introduced during handling or processing. This use must comply with all applicable FDA regulations, including, but not limited to 21 CFR 173.405(a)(b), 21 CFR §184.1061 and 21 CFR 170.3(o)(2).

Antimicrobial Fruit and Vegetable Treatment will control the growth of Spoilage and Decay Causing Non-Public Health Microorganisms on processed fruit and vegetable surfaces.

Add Antimicrobial Fruit & Vegetable Treatment into the fruit and vegetable washing/processing vessel according to the table below, submerge and agitate fruits and vegetables for a minimum of 90 seconds. Drain thoroughly and allow to air dry. No rinse required.

Minimum Contact Time	Ounces of concentrate per gallon of water	Dilution ratio (parts concentrate : parts water)	Active ingredients	
			ppm SDBS*	ppm Lactic Acid
90 seconds	0.75 – 1.00	1:170 – 1:128	76 – 111	1061 – 1391

\* Sodium dodecylbenzenesulfonate

Refer to the Antimicrobial Fruit & Vegetable Treatment package insert for the recommended list of fruits and vegetables.

**STORAGE AND DISPOSAL:**

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

**PESTICIDE STORAGE:** Store in a cool, dark, dry place in the original container. Always replace covers.

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. Waste resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Non-refillable container. Do not reuse this container to hold materials other than pesticides or diluted pesticide rinsate. Offer for recycling if available or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities.

**RESIDUE REMOVAL INSTRUCTIONS:** For containers less than 5 gallons. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container ¼ full with water and recap. Shake 10 seconds. Follow Pesticide Disposal instructions for rinsate disposal. Drain for 10 seconds after the flow begins to drip. Repeat procedure two more times.

**RESIDUAL REMOVAL INSTRUCTIONS:** For containers greater than 5 gallons. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill container ¼ full with water. Tip container on its side and roll back and forth, ensuring at least one complete revolution for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over its other end and tip back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat procedure two more times.

FOR COMMERCIAL USE

Net Contents:

96 oz.  
 1 U.S. Gal. (3.78 L)  
 2.5 U.S. Gal. (9.46 L)  
 4 U.S. Gal. (15.14 L)  
 30 U.S. Gal. (113.56 L)  
 50 U.S. Gal. (189.27 L)

Manufactured by:  
Ecolab Inc.  
370 N. Wabasha Street  
St. Paul, MN 55102

EPA Reg. No. 1677-234

EPA Est. No.: 1677-MN-1 (P), 60156-IL-1 (SI), 1677-  
CA-2 (R), 1677-TX-1 (D), 1677-IL-2 (J),  
1677-CA-1 (S), 1677-GA-1 (M), 1677-WV-1 (V)  
Superscript refers to first letter of date code

Optional Marketing Language:  
"See side/back panel for First Aid..."

Package Insert

**Water Additive for Pathogen Reduction in  
Fruit and Vegetable Wash or Process Waters  
Controls Spoilage and Decay Causing Bacteria in Fruit and Vegetable Wash  
or Process Waters**

**Controls the Growth of Spoilage and Decay Causing Non-Public Health Microorganisms  
on Processed\* Fruit and Vegetable Surfaces and in Wash or Process Waters  
Reduces Bacterial Pathogens on Processed\* Fruit and Vegetable Surfaces  
Controls growth of Spoilage and Decay Causing Non-Public Health Microorganisms on  
Processed\* Fruit and Vegetable Surfaces.**

**When used as directed for the treatment of raw agricultural  
commodities and process water under EPA regulations Antimicrobial  
Fruit & Vegetable Treatment will:**

1. Reduce 99.9% of the pathogens *Escherichia coli* O157:H7 (ATCC 43895, 35150, 43890), *Listeria monocytogenes* (ATCC 49594, 19114, 19116) and *Salmonella enterica* (ATCC 10721, 6962, 13311) in wash or process water for fruit and vegetable raw agricultural commodities (RACs).
2. Control spoilage and decay causing non-public health microorganisms present in the wash or process water for fruit and vegetable raw agricultural commodities (RACs).
3. Control the growth of spoilage and decay causing non-public health microorganisms on raw agricultural commodity fruit and vegetable surfaces.

Antimicrobial Fruit & Vegetable Treatment can be applied to the following types of fresh fruit, post harvest.

Vegetables

- Root and tuber vegetables such as carrot, potato, radish, rutabaga, sweet potato, yam and sugar beets.
- Leaves of root and tuber vegetables such as turnip greens and sugar beet
- Bulb vegetables such as onions, leeks, garlic and shallots.
- Leafy vegetables such as lettuce (head and leaf), celery, fennel, endive, escarole, parsley, radicchio, rhubarb, spinach

- Brassica leafy vegetables such as broccoli, brussel sprouts, cabbage, cauliflower, collards, kale, kohlrabi, mustard greens, mustard spinach and turnips.
- Legumes (succulent) such as beans, peas and alfalfa.
- Fruiting vegetables such as pepper (bell, pimento, hot, sweet), tomato, tomatillo and eggplant.
- Cucurbits such as cucumber, melon (crenshaw, honeydew, honey ball, mango, pineapple, watermelon), summer squash, pumpkins and winter squash.

Fruits

- Citrus fruits such as sweet orange, sour orange, lemon, lime, tangelo, tangerine, mandarin, citrus citron, kumquats and grapefruit.
- Pome fruits such as apples and pears
- Stone fruits such as sour and sweet cherry, peach, nectarine and plum.
- Small fruits and berries such as blackberries, blueberries, boysenberries, red and black raspberries and strawberries.

Herbs and spices such as basil, chives, dill, oregano, rosemary, sage, savory and thyme.

Miscellaneous such as apricots, artichoke, cranberry, dates, figs, grapes, guava, kiwi, mango, mushrooms, okra, olives, persimmons, pomegranate and watercress.

**When used as directed for the treatment of \*processed fruits and vegetables under FDA regulations, Antimicrobial Fruit and Vegetable Treatment will:**

Reduce the pathogens *Escherichia coli* O157:H7, *Listeria monocytogenes* and *Salmonella enterica* on the surface of processed fruits and vegetables introduced during handling or processing.

Control the growth of Spoilage and Decay Causing Non-Public Health Micoorganisms on processed fruit and vegetable surfaces.

This use must comply with all applicable FDA regulations, including but not limited to 21 CFR 173.405(a)(b), 21 CFR §184.1061 and 21 CFR 170.3(o)(2).

**ECOLAB**

**Antimicrobial Fruit & Vegetable Treatment**

Under license to Ecolab, Inc. from the U.S. Environmental Protection Agency. Ecolab, Inc. is the manufacturer of this product. Ecolab, Inc. is not responsible for any damage to property or persons resulting from the use of this product. Ecolab, Inc. is not responsible for any damage to property or persons resulting from the use of this product.

6100283

FOR COMMERCIAL USE  
KEEP OUT OF REACH OF CHILDREN  
SEE BACK FOR DETAILED INSTRUCTIONS  
WARNING  
EPA REG. NO. 1077-2341

**Area of use:** food retail establishments, such as restaurants, cafeterias, food service operations, commissaries, and markets.

**DIRECTIONS FOR USE:** This product is intended for use in a water treatment system. When used as directed under EPA registration, Antimicrobial Fruit & Vegetable Treatment will:

- Reduce 99.9% of the pathogens Escherichia coli O157:H7 (ATCC 43875), Salmonella enterica (ATCC 10737), Listeria monocytogenes (ATCC 49619), and Shigella flexneri (ATCC 49619) in water or process water for fruit and vegetable raw agricultural commodities (RACs).
- Control the growth of spoilage and decay-causing microorganisms on produce and allow for at least 14 days of shelf life.

**Do not treat the surface of processed fruits and vegetables**

This product may be used on fresh produce to reduce the pathogens Escherichia coli O157:H7, Listeria monocytogenes, and Salmonella enterica on the surface of processed fruits and vegetables intended for handling or consumption. Do not use on produce that has been previously treated with any antimicrobial treatment.

Antimicrobial Fruit & Vegetable Treatment will control the growth of spoilage and decay-causing, non-pathogenic microorganisms on processed fruit and vegetable surfaces.

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**First Aid:**

If in eyes: Hold eye open and flush slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes for removal and discard. Call a Poison Control Center or doctor for treatment advice.

If on skin or clothing: Use oil-soluble cleansers, soap, and water to immediately wash with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

For more information, call 1-800-338-0036.

**STORAGE AND DISPOSAL:**

DO NOT CONTAMINATE FEED, FOOD OR FEED BY STORAGE OR DISPOSAL. This product is not for use as a feed, feed ingredient, or feed additive. Do not use in or around feed, food, or feed ingredients. Do not use in or around feed, food, or feed ingredients.

**PESTICIDE DISPOSAL:** Pesticide waste are strictly hazardous. Do not discharge, dump, spill, or otherwise dispose of this product in or around feed, food, or feed ingredients. Do not use in or around feed, food, or feed ingredients.

**HAZARD IDENTIFICATION:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

**HAZARD STATEMENTS:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

**HAZARD PICTOGRAMS:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

**HAZARD SIGNAL WORDS:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

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**OTHER INGREDIENTS:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

**NET WEIGHT:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

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**NET WEIGHT:** This product is not a pesticide. Do not use in or around feed, food, or feed ingredients.

ACCEPTED

APR 8 2013

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the sale, distribution, and use of this pesticide, EPA Reg. No. 1077-2341

EPA Reg. No. 1077-2341  
EPA Est. No. 1077-041 (M), 1077-041 (V), 5389-041 (D)  
Supplier refers to first letter of date code  
3100 West 10th Street  
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EPA Reg. No. 1077-2341  
EPA Est. No. 1077-041 (M), 1077-041 (V), 5389-041 (D)  
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